When cure becomes the disease

A 61-year-old lady farmer sustained an injury with vegetative matter to the right eye 1 month back. She consulted locally, where a diagnosis of right-eye fungal keratitis was made based on clinical suspicion, and a cocktail of topical antifungal and antibacterial agents was instituted on an hourly basis. The patient reported an initial response with the treatment for the first 3 weeks, followed by no further improvement and continuous pain and watering from the eye. On presentation to us, her best corrected distance visual acuity in the right eye was 20/100, and examination revealed conjunctival congestion with edema, lower palpebral follicular reaction with a 3 mm × 2 mm paracentral punched-out corneal ulcer, and no active infiltration.

- What is your next step?
  A. Repeat corneal scraping
  B. Continue same medications and review after 1 week
  C. Switch to antiviral therapy
  D. Drug holiday and re-assess

Findings

The picture at presentation [Figs. 1 and 2] shows lid edema, circumciliary congestion, epithelial defect of 3 mm × 2 mm in size with cellularity at the edges, punched-out margin,

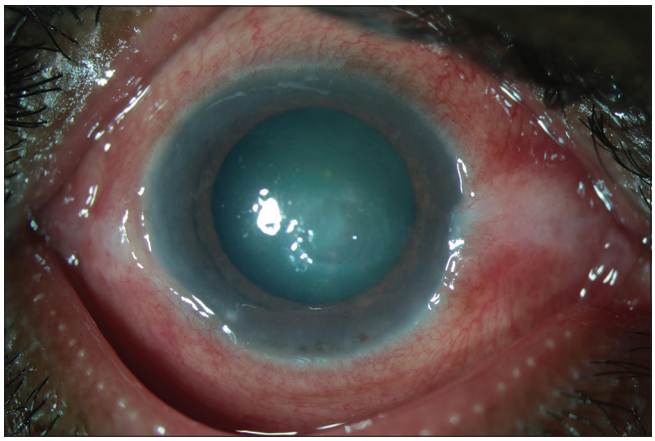

Figure 1: Diffuse illumination picture at presentation

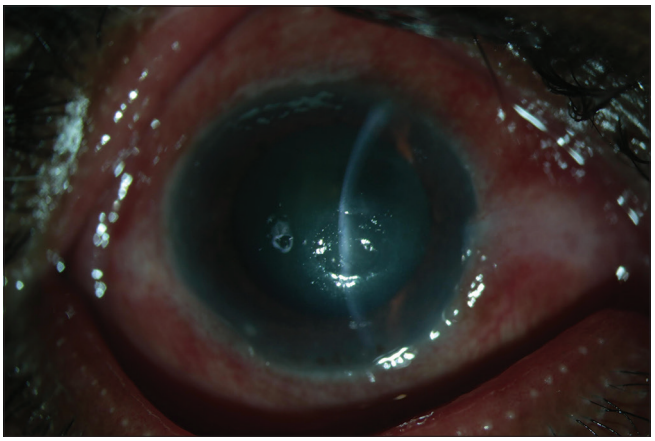

Figure 2: Optical section at presentation

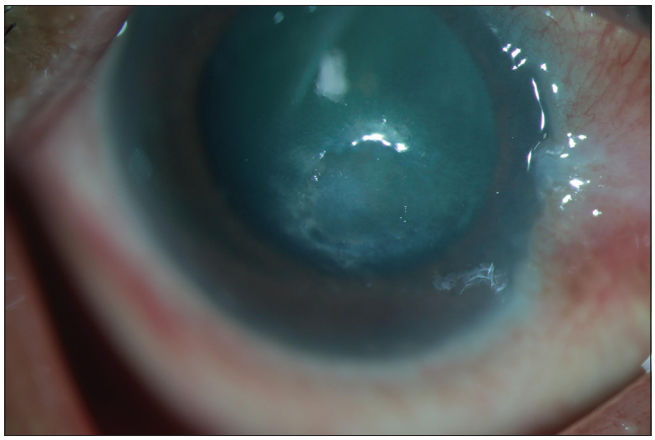

Figure 3: Week 1: The ulcer margins significantly flattened with the beginning of scar formation

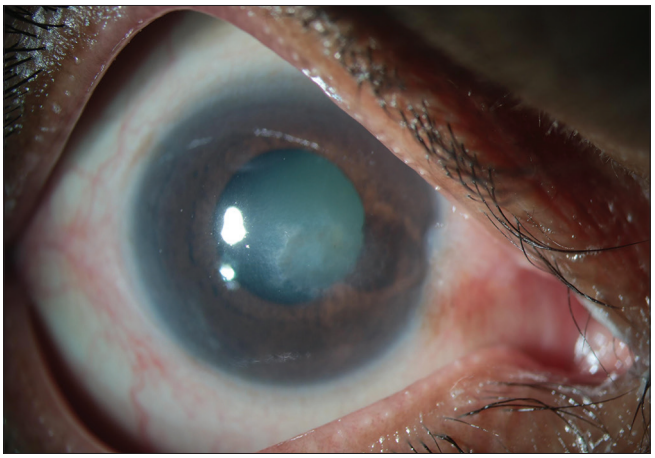

Figure 4: Month 1: Scar formation and flattened ulcer margins

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heaped-up edges, and no infiltrate or hypopyon. The week-1 image [Fig. 3] shows the ulcer margins significantly flattened with the beginning of scar formation, and the month-1 image [Fig. 4] shows scar formation and ulcer margins flattened. The visual acuity at presentation was 20/100, which improved to 20/50 at week 1 and 20/40 at month 1, with resolution of signs and symptoms.

- Diagnosis – Right eye ocular medicamentosa
- Correct answer – D) Drug holiday and reassess

Discussion

Ocular medicamentosa is used to describe any damage to ocular surface structures and disturbance of function, along with an inflammatory response related to excessive or improper topical drug usage.[1] Diagnosis is based on the presence of a sterile corneal ulcer, a negative microbiological scraping report, and a history of relatively long-term use of topical medications. Lastly, improvement in signs and symptoms after stopping the use of topical medications and complete epithelial healing without any topical therapy also help in making the diagnosis of ocular medicamentosa.[2,3]

In our case, the signs and symptoms, namely non-resolution of symptoms post 3 weeks, using a cocktail therapy, lid edema, conjunctival edema, lower palpebral follicles, heaped-up margins of corneal ulcer with the absence of active infiltrate, and no hypopyon clearly pointed to the diagnosis of ocular medicamentosa. The excessive use of drugs along with the preservative (benzalkonium chloride) is responsible for ocular toxicity, and the treatment involves a drug holiday and monitoring the progress diligently.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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References

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